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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,266	07/26/2006	Tadahiro Ohmi	427-109	4778
23117 7590 02/18/2010 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
NGUYEN, COLETTE B				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
02/18/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/587,266

Applicant(s)

OHMI ET AL.

Examiner

COLETTE NGUYEN

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4 to 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of the application

Claim 1 is amended. Claim 3 was cancelled.

*Claim 1, 2, 4 to 12 are pending in this application
with claims 1 and 8 are independent claim.*

Claim Rejections - 35 USC § 103

1. *The text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.*
2. *Claims 1, 2 and 4-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Rostaing et al. (5,993,612) in view of Breitbarth et al (DE4319118) for reasons as of record. As for the amended limitation "before" instead of "when", the meaning of the claim does not change as the examiner interprets the word "already" and "when" in "the exhaust gas is already in an excited state when the exhaust gas is introduced into.." the same as "before" therefore the substitution of the word when with the word before does not change the limitation of the claim.*

Response to Arguments

Applicant's arguments filed 12/04/2009 have been fully considered but they are not persuasive. As stated in the advisory dated 07/13/2009 and in the previous office action dated 08/11/2009, Rostaing teaches that the gas exiting from the production line

is pulled to the treatment unit by vacuum pump which can partially excite the gas as it exhausted out of the production line, then the gas is further excited by a plunger (plunger 46) before reaching the microwave-generator/waveguide system (equivalent to the excitation unit of claim 1) therefore the limitation of "at least a portion of the exhaust gas is already in an excited state before the exhaust gas is introduced into an excitation unit..." is anticipated as the function of the plunger is to apply a force to the gas which means putting the gas in an excited state before reaching the microwave generator. This set up is similar to the description on page 5 and 6 of the applicant's specification where the excitation unit is arranged between the first and second pumps (Rostaing plunger 46 and 50). Furthermore, in column 11 line 43 to 50, Rostaing points out some variants to make the gas excited before reaching the excitation unit and the reaction remover such as spiral or helix structure going outside of the dielectric tube. He does not mention that "at least the portion of the gas is already in an excited stated", however the equipment and the arrangement of the equipment of the gas treatment device is the same and it is know in the art that when a force is applied to a gas by a pump, the gas will be excited. As evidence JP407272634A teach how a gas is excited with a pump.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US5,965,786 and WO200108783
2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to COLETTE NGUYEN whose telephone number is (571)270-5831. The examiner can normally be reached on Monday-Thursday, 10:00-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Mayes can be reached on (571)-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/COLETTE NGUYEN/
Examiner, Art Unit 1793

February 15, 2010

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793